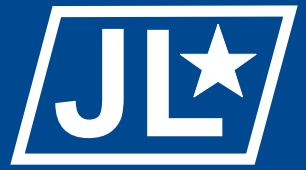


also in this edition:

Financial Managers: Becoming Strategic Force Multipliers
Thinking About Logistics
Air Force Logistics Management Agency
The Early Pacific War: He Fought with What He Had
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AIR FORCE JOURNAL *of* LOGISTICS

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mobility and forward presence

Logistics

Theater Mobility Forces: Command and Control Doctrine
Retooling Global Mobility and Forward Presence: Solving
the Challenges of Opening Air Bases

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Special Feature

Enduring Freedom and Iraqi Freedom demonstrated the enormous capacity of the US military to establish forward locations for expeditionary operations. These operations highlighted significant areas where the United States can enhance its ability to project forces.

mobility and forward presence logistics

Theater Mobility Forces: Command and Control Doctrine Retooling Global Mobility and Forward Presence: Solving the Challenges of Opening Air Bases

This edition of the Journal begins with two articles that look at different facets of mobility. In “Theater Mobility Forces: Command and Control Doctrine” the authors argue that lessons learned from history would indicate that post-conflict consolidation always will be appealing but rarely pay the expected dividends and that having a clean chain of command is a valuable tool. Organizing mobility forces can be accomplished either through a specific mission or geographical area or a combination of the two. The main lesson learned from history is that an airman in charge of the air forces is needed, but it is also important to have a commander who understands the missions of the aircraft commanded. Another lesson was that a commander in theater would be more effective. This does not negate the fact that a global view, such as TACC maintains for all strategic airlift, is not more efficient and allows for an efficient worldwide system. However, in a contingency theater, there needs to be a theater commander,

much like the lesson learned from command and control of airlift during Vietnam and the Pacific theater of World War II. In “Retooling Global Mobility and Forward Presence: Solving the Challenges of Opening Air Bases” Croslen and Kwolek point out that given the US forward presence strategy and limited strategic lift capability, the key to knocking the door down (forced entry) and killing targets is the ability to achieve global reach through expeditionary basing and sustainment. Opening airbases is critical to building up forces to gain and expand the strategic initiative. Effective base opening requires the synergistic effects of applying both ground and air forces while transforming from joint interoperability to exploiting the synergy of joint interdependency. Enduring Freedom and Iraqi Freedom demonstrated the enormous capacity of the US military to establish forward locations for expeditionary operations. These operations highlighted significant areas where the United States can enhance its ability to project forces.

Introduction

Special Feature

The whole idea behind the expeditionary air force is to be able to plan and execute air and space power anywhere on the globe...to do it in the way we train.

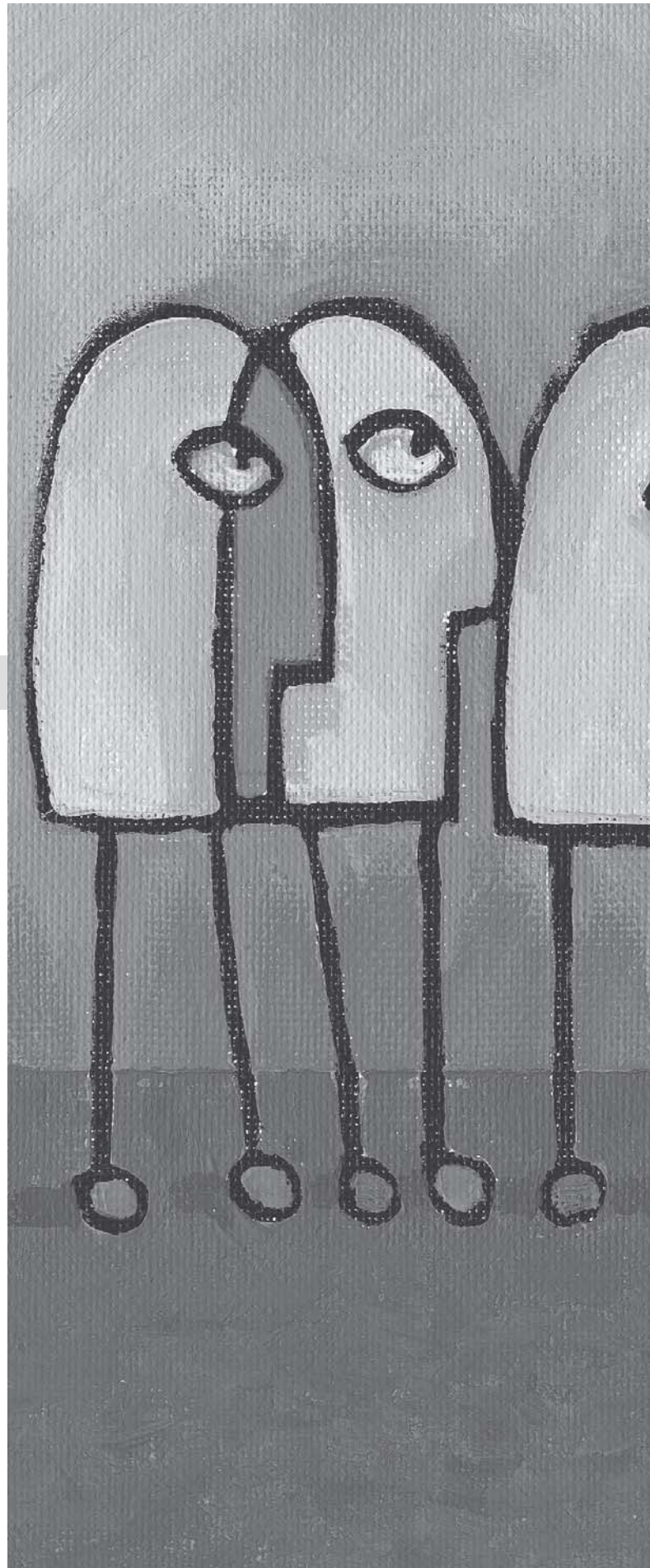
—General John Jumper, USAF

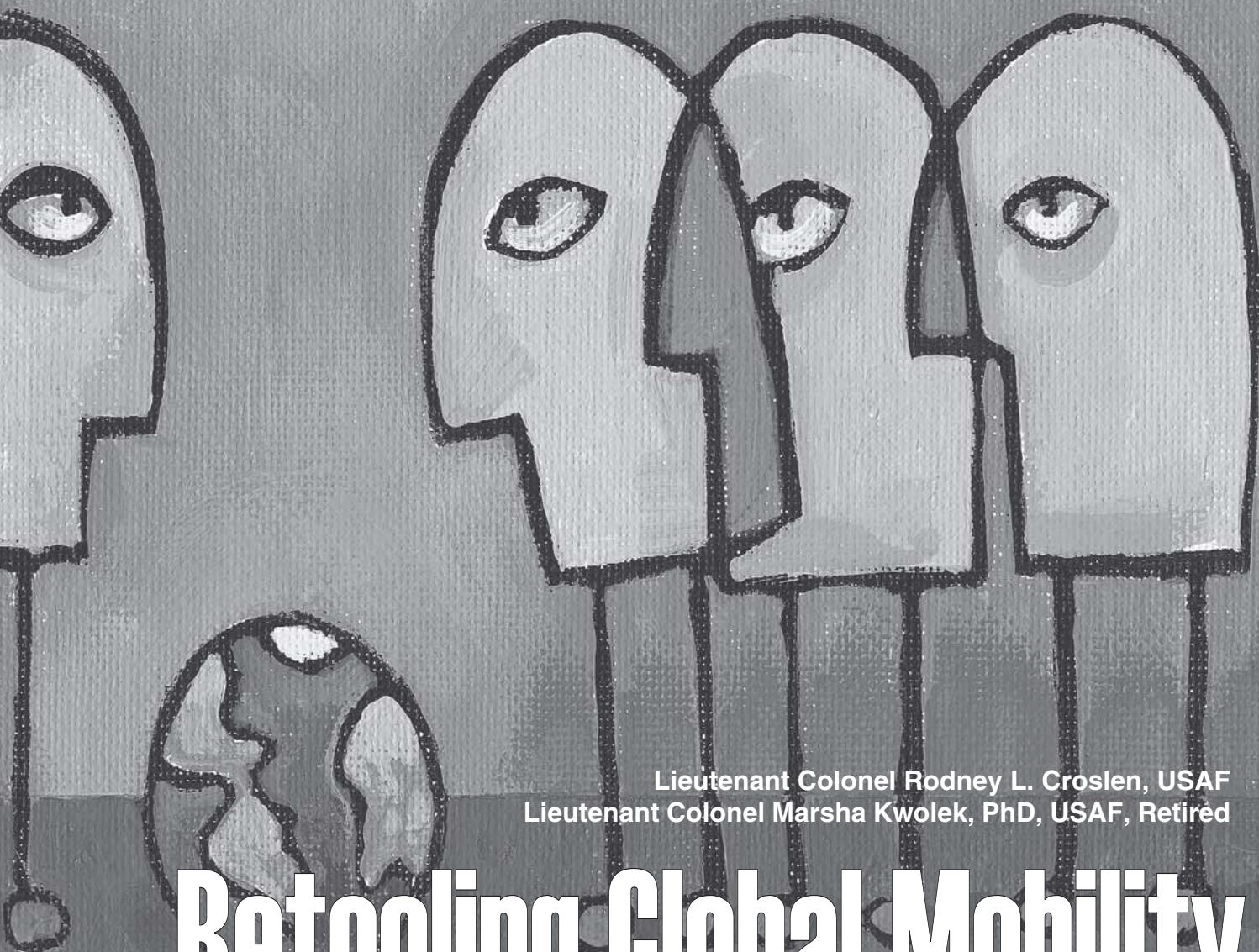
At this point in history, the US military enjoys unequalled combat capability as demonstrated in Operations Enduring Freedom and Iraqi Freedom. These operations were clear examples of the overwhelming capability of a technologically superior force. They also demonstrated the enormous capacity of the US military to establish forward locations for expeditionary operations. Yet, there remain significant areas where the United States can enhance its ability to project forces. Along these lines, senior Air Force leaders have acknowledged the importance of airbases to projecting airpower

anywhere on the globe. Recent crises have compelled the United States to project airpower into places where bases did not exist under the control of friendly forces, thereby elevating the emphasis on seizing and opening airbases. The Air Force, together with the other services, now strives to enhance this competency for the purposes of maintaining the capability for strategic reach and power.

Enduring Freedom and Iraqi Freedom highlighted the most recent lessons. These operations highlighted shortfalls or gaps in the Air Force and joint base-support planning process, particularly regarding the planning and organization for opening airbases. These shortfalls revolve around gaps in responsibility, planning, and coordination between ground and air force units. These gaps were the result of inadequate doctrine, planning, and organization for security, task accomplishment, and command and control, predominantly during transition between phases of base opening operations.

To establish the conceptual baseline, the following discussion frames the contextual meanings of the terms doctrine, planning, and organization. As defined in joint publications, doctrine comprises the fundamental principles that guide action. Doctrine is authoritative but does not substitute judgment. It should guide planning and organization. Planning is the dynamic process and method of arranging details to accomplish a specific set of objectives. As a process, military planning integrates ways and means (the who, what, where, and when) to arrange tasks based on desired objectives—the ends. Planning may influence organization of forces at various levels and, vice versa, how forces are organized may influence planning. The term organization refers to the structural arrangement of forces (functions and





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Retooling Global Mobility and Forward Presence

Solving the Challenges of Opening Air Bases

capabilities) to accomplish a specific set of objectives. While organization and planning are overlapping constructs, they are different in the sense that process is different from structure. This article addresses each construct separately to highlight the unique influences on each other and on the process and ability of opening airbases.

For the purposes of this article and with respect to Air Force doctrine, the phrase *opening airbases* means those activities included in the initial phase of employing personnel and equipment to set up and operate facilities and systems at a designated location intended to serve as an expeditionary airbase. Those activities include, in no particular order, assessing the airfield, preparing the airfield for future operations, bedding down forces, establishing wing-level command and control, and achieving sortie generation capability. As defined, the construct of opening airbases assumes that the basing area was not under the operational control of US forces. The entry into the location could be a forced entry, typically requiring Army or Marine ground combat forces, or a permissive entry. The forced entry may be the result of a predetermined or notional plan to seize an airfield following or during combat operations. Regardless of entry type, these activities warrant some level of joint or service-specific doctrine, planning, and organization. This article primarily limits the discussion to those issues that relate to the Air Force combat support roles and missions of opening airbases.

with the uncertainty in the timing and number of deployments required to support contingencies worldwide. Understandably, the broad spectrum of instability across the globe and unpredictable nature of conflicts, whether it is the result of state aggression such as Iraq's invasion of Kuwait or the result of ethnic strife in failed states such as Somalia, drives a level of uncertainty in planning. This uncertainty and unpredictability, combined with the challenge of access for basing, increases the importance of having a flexible and responsive base opening capability if the United States is to maintain its current degree of global reach through rapid mobility. It is also critical to maintaining a credible military capability, which is essential to realizing the objectives of the US national security strategy.

The context, which begins with the end of the Cold War, is key to understanding the influences on current Air Force doctrine, organization, and planning processes. The end of the Cold War saw a rise in the number of smaller scale conflicts throughout the world at a time when the United States was undergoing a reduction in defense budgets and a smaller forward presence. From 1985 to 1995, the defense budget declined by 40 percent. Department of Defense (DoD) personnel strength dropped from 600,000 to 370,000, and the number of major overseas bases declined from 39 to 13 forward operating locations.¹ Limited forward presence and more operations meant more deployments for a smaller force. Air Force doctrine evolved and recognized

Two separate deployment planning processes, one for major theater war and a second informal process for lesser conflicts have characterized the period since the end of the Cold War.

Air Force combat support forces normally would not take an active role in forced entry.

In setting a roadmap for analyzing the context and interrelationships among the issues with doctrine, planning, and organization, a few guiding questions came to mind on how to frame the solution set. What specific lessons have we learned from past operations? Are those lessons being applied and, if so, how? Is there a viable plan for improvement? What linked doctrine, planning, and organization? Are there any joint issues? Does this affect planning integration with the combatant commands? Is there adequate understanding of the environment in which the change is taking place and a clear anticipation of ripple effects?

A Context for Change

Understanding the air and space expeditionary force (AEF) construct is important to understanding the context of the challenges associated with projecting forces to establish expeditionary airbases in forward locations. The AEF construct is symbolic of the Air Force culture and distinctly affects the way the Air Force plans for deployments and employment of forces. Along these lines, the AEF construct drives the way the Air Force structures force packages for contingencies. The construct has become the framework for presenting forces to the combatant commanders and, similarly, a critical aspect for effective joint planning. The AEF is the construct the Air Force chose to deal

that the military strategy shifted from an emphasis on forward basing to one of forward presence.² Forward presence is achieved through the ability to deploy into a crisis rapidly.

To address the operational deployment requirements for forward presence and speed (for example, bombs on target within 48 hours of tasking), the Air Force developed the AEF concept in 1998 and organized the force (active duty, reserve, and guard) into ten AEFs. The intent of the AEF concept was to "enhance operational responsiveness and provide improved personal predictability and stability in airman deployments."³ The drawdown of US forces, coupled with the AEF concept, requires the capability to establish airbases in an environment where the US forward presence is limited, so combat support capability is of much greater importance. Air Force doctrine confirms the importance by identifying Agile Combat Support as a competency for the Air Force. Basing is one part of that competency. Some considerations in basing include force protection, logistics, and access. These capabilities are inextricably linked to combat support resources. Additionally, combat support resources are a significant part of the forces deployed into a new base to provide the key linkages for logistical support. To further illustrate this point, Figure 1 shows the amount of tonnage required to deploy support resources for a wing of F-15E aircraft from the 4th Air Expeditionary Wing, Seymour Johnson AFB, South Carolina. Deployment of aircraft

Article Highlights

Air Force leaders have acknowledged the importance of airbases to projecting airpower anywhere on the globe. Recent crises have compelled the United States to project airpower into places where bases did not exist under the control of friendly forces, thereby elevating the emphasis on seizing and opening airbases. The Air Force, together with the other services, now strives to enhance this competency for the purposes of maintaining the capability for strategic reach and power.

Enduring Freedom and Iraqi Freedom highlighted the most recent lessons. These operations highlighted shortfalls or gaps in the Air Force and joint base-support planning process, particularly regarding the planning and organization for opening airbases.

The best perspective is one that views the emerging initiatives as an evolving solution set focused on transformation within the strategic context. The context for change uniquely influences doctrine, planning, and organization. The lessons from recent operations provided a few pathfinders to spark transformational initiatives. Most notably, adequate doctrine on opening airbases did not exist, but the Services are aggressively working to develop doctrine for opening airbases with a focus on functional integration and better CONOPS. Joint issues regarding base operating support and transition between phases arose in both Iraqi Freedom and Enduring Freedom, but the opening of Tallil AB is a good model for improvement. Planning was slow, difficult, and cumbersome, and organizational constructs were not designed to place the right capability and function in the right place at the right time, but some form of the CRG construct, combined with integrated planning, will solve those concerns.

to forward operating locations obviously requires logistical support in the form of airfields/ramp space, supporting infrastructure, supplies (fuel, munitions, water, food, and so on), and the means to deliver supplies.

In addition to the contextual challenges for planning combat support, the system itself is slow. The current deliberate and crisis action planning system relies on a set of tools that allows forces in force packages to build plans. The typical product of deliberate operational planning is known as an operations plan (OPLAN). The OPLAN's associated deployment requirements normally are presented in time-phased force and deployment databases (TPFDD), which track force packages against various identifiers known as unit type codes (UTC). These concepts are foundational constructs for the current planning system.

The current deliberate planning system does not support the Air Force deployment time-line goals for a bare base and sustaining the operational tempo of a typical expeditionary force.⁵ Figure 2 compares actual deployment measurements to the goal of having bombs on target within 48 hours of aircraft arrival. The lift requirement and time to prepare support facilities drive the time line. The Air Force must employ 72 C-17 loads to stage a standard Harvest Falcon expeditionary shelter package, which takes 4 days to construct for bare bases.⁶

In addition to being slow, the planning process is fragmented. In the planning process, "Each commodity and its support processes are viewed largely independently.... In this fragmented process, opportunities to develop consolidated support operations...may be missed."⁷

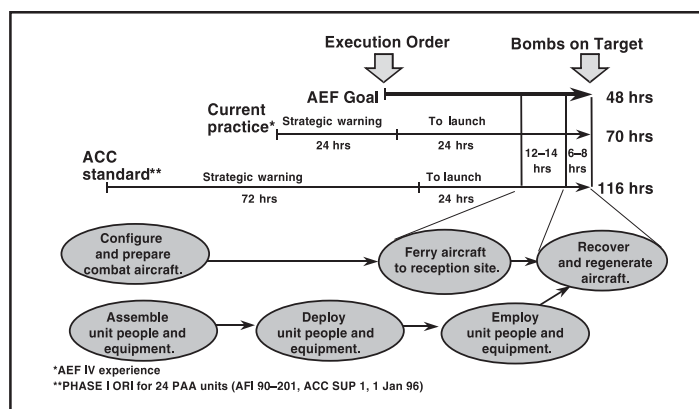


Figure 1. Breakdown of Support for the 4th Air Expeditionary Wing⁴

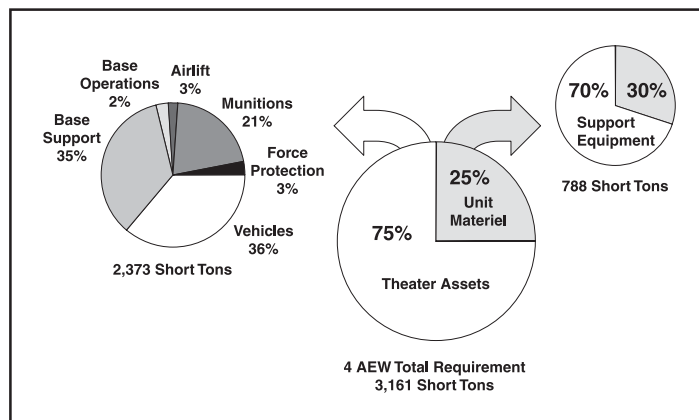


Figure 2. Deployment Time Lines

Further highlighting this fragmented process, a July 2001 study by Major Christopher Valle points out that the Air Force actually has two separate deployment planning processes, one for major theater war and a second informal process for lesser conflicts that have characterized the period since the end of the Cold War. The Air Force developed the latter process to achieve the necessary flexibility to deploy personnel to small-scale contingencies and multiple rotational deployments. Valle points out that the Air Force used a separate process, known as the Air Force Palace Tenure program, to manage support force requirements. As combat support requirements grew over the last decade, the informal process only served to fragment existing UTC force deployment packages as the Air Force used a *fair share* approach for allocating requirements to the major commands (MAJCOM). Before Enduring Freedom, as a rule, the Air Force built UTCs to support large-scale conflicts; consequently, the UTCs were too cumbersome or contained an inappropriate mix of capability (personnel and equipment) to support today's requirements for flexible and responsive force packaging. This study highlighted the need to provide detailed manpower and logistics data to planners to support the requirements of the combatant commands.

Similarly, an Air Force Audit Agency study alludes to the lack of consistency in the planning process. The study concludes, "Air Force and command planning personnel did not consistently and accurately assign forces to the AEFs. Further, the Air Force did not adequately manage AEF personnel requirements."⁸ The study notes that the numbers of equipment and persons varied from one AEF to the next, with AEF 9 having nearly twice as many persons as AEF 10—24,755 compared to 11,154. Additionally, the Air Force did not always use the pre-identified UTC force packages in the Air Force Worldwide UTC Summary. In April 2001, the Air Force Deputy Chief of Staff for Plans and Operations issued the revised Air Force Instruction 1-400, which required corrective action.⁹

This is not to say that the Air Force expeditionary construct is broken entirely but rather to point out some specific areas where the construct needs improvement and the context that one must consider. Additionally, this discussion serves as a baseline for better understanding the challenges with opening airbases. The AEF construct was a transformational approach designed to address operations tempo, but the transformation did not go far enough. The force packages designed for major theater war in Europe with forward basing are too bulky and inflexible to support the requirements in today's uncertain strategic environment with a much less forward presence. Retooling the force packages will require an evaluation based on capabilities. The planning system is not sufficiently adaptive and responsive. The planning process is fragmented and relies on multiple pathways, some informal. The doctrine, planning, and organizational constructs must evolve. The best place to start is by drawing upon the lessons from recent conflicts.

Lessons: Doctrine, Planning, and Organization

The Air Force considers the operational execution of rapidly generating from seized airfields during Iraqi Freedom a success because of the enhanced combat effectiveness and support the Air Force provided to the other services.¹⁰ The underlying

implication is that the Air Force used the lessons of Enduring Freedom to implement improvements that it incorporated into planning and execution for Iraqi Freedom.

Doctrine

Doctrine generally should identify the best way of employing forces based on time-tested principles. Current doctrine falls short of identifying how best to employ Air Force capability to open airbases. As noted earlier, the absence of guidance contributed to the challenges with opening airbases in Enduring Freedom and Iraqi Freedom. Understandably, with greater uncertainty in terms of the location of future crises and threats, becoming expeditionary has become a critical component of US national security strategy. As the 2002 US National Security Strategy (NSS) notes, the war in Afghanistan highlighted the need to transform maneuver and expeditionary forces to operate in environments that require extended logistics in remote locations with little forward presence.¹¹ The current NSS and force posture dictate the need for a basing capability that facilitates global access. Since doctrine presumably provides guidance on the best way to do things, that is where the discussion will start.

Several doctrine publications address areas relevant to planning and organizational issues. For example, Air Force Doctrine Document (AFDD) 2, *Organization and Employment of Aerospace Force*, states, "The Air Force component in a joint force will organize as an aerospace expeditionary task force (ASETF)." The document also specifies that the ASETF is a scalable and tailorable organization. This essentially means that ASETFs shall be adaptive and flexible. Another document, AFDD 2-6.3, *Air Mobility Support*, discusses the forces required and the sequence of capabilities for establishing airbase operations. However, AFDD 2-6.3 does not address adequately the initial steps of opening airbases. It discusses packaging capabilities as *modules* for deployment. The modules are grouped under a broader concept referred to as the Global Air Mobility Support System (GAMSS). GAMSS forces are comprised of five force modules: (1) onload, (2) contingency tanker task force, (3) stage/en route, (4) hub/transload, and (5) spoke/offload. The AFDD says "each force module is comprised of the UTCs, personnel and equipment to sustain bare base operations" but contradicts itself by stating that base operating support forces are deployed after GAMSS forces. In other words, the contradiction exists because sustainment requires base operating support, yet the GAMSS concept presumes that the five modules do not contain base operating support yet can provide sustainment capability. The AFDD goes on to say that the supported combatant commander should provide base operating support.¹² Clearly, the underpinning thought for the document assumes permissive entry into a location that does not require airfield assessment or repair capability that resides in base operating support.

Consistently, the published unclassified set of lessons learned identifies the need for better doctrine. Following Enduring Freedom, some Air Force agencies identified an opportunity to generate better doctrine to improve how well training and deployment requirements are integrated in organizational constructs. For contingencies within the last 6 years, the Air Force divided itself into chunks of capability deployed forward as AEFs.

These AEFs had little or no opportunity to train and develop as a cohesive unit prior to arriving at their deployed location. In fact, 65 to 100 locations were tasked to provide personnel to create and sustain many of the forward operating locations (FOL) the Air Force currently supports [for Enduring Freedom and Iraqi Freedom].... This is referred to as *Swiss-cheesing* the force.... Additionally, creating an ad hoc combat support organization has other adverse affects [effects] as well.”²³

An additional doctrinal issue discovered during Enduring Freedom is the lack of joint doctrine on cross-service base operating support (BOS). For example, Air Force combat support units found it extremely difficult to determine BOS requirements for special operations units because of their high tempo and secrecy regarding numbers of persons and destinations. The differences between Army base operating support and Air Force BOS concepts also became an issue. The Air Force integrates base operating support into the AEF and air expeditionary wing structure. Army units have a significantly smaller BOS capability in the active forces and rely on reserve support battalions. The differences translated into differing views on the scope of support.

When operations were joint forces, or in cases where the Army took over from the Air Force, Army units generally did not provide support until after all preparations were in place. Deployment orders failed to address base operating support and were unable to get support units in these initial locations early enough to provide adequate support.¹⁴

Other services’ reliance on Air Force beddown capability and quality-of-life assets, when collocated with Air Force forces,

openings. During the initial efforts of Enduring Freedom, movement of forces began before an OPLAN or TPFDD was completed.¹⁸ The absence of established plans while personnel and equipment were flowing complicated command and control efforts and operational control alignment. Similarly, while the timing of US Central Command’s (CENTCOM) movement of headquarters forces from MacDill AFB, Florida, to Prince Sultan AB, Saudi Arabia, most likely was driven by higher direction and circumstance, the timing may have contributed to some of the planning challenges. In October 2001, the Air Force opened two expeditionary bases in Afghanistan to provide air support for ground operations. Ground forces executed the early planning for initial operations in northern Afghanistan, absent any coordination with the air component. By the time the air component became involved, it was clear that basing would be a challenge. “In October 2001, a requirement emerged, an order of magnitude increase, for close air support that was unfeasible given the existing layout of accessible bases.”¹⁹ The geography alone served the purposes of the enemy’s antiaccess wedge against coalition capabilities. Planners were just beginning to think about forced and permissive entry for the purposes of establishing airbases. During that time, given that it was a ground operation with evolving air support, it was unclear who should take the lead in establishing a basing strategy for northern Afghanistan. The US Air Forces CENTCOM (CENTAF) Combined Air Operations Center accepted responsibility and began to aggressively work with CENTAF A4 staff and Headquarters Air Combat Command staff to develop a basing

The current NSS and force posture dictate the need for a basing capability that facilitates global access.

strained Air Force assets.¹⁵ Another joint interaction issue is the need to address the command and control transition from ground forces, which seize airfields, to airmen, who stand up and operate airfields. The bottom line on doctrinal issues is as Task Force Enduring Look concluded, “Solid doctrine, deployment and employment procedures, and strict adherence will provide the necessary framework to reduce the confusion and enhance mission capability.”¹⁶

Planning

Operation Allied Force is a case where planning was made more difficult because of the lack of a planning template for matching forces to capability requirements. While each functional area in US Air Forces in Europe identified requirements in the Joint Operation Planning and Execution System, only 40 percent of the TPFDD requirements contained adequately identified standard (versus nonstandard, piecemeal, or tailored) UTCs. The confusion resulted in people being dual tasked and “deployed through two different tasking vehicles,” which made it difficult for the planning staffs to determine the impact to OPLAN requirements.¹⁷ Several years later, similar challenges would occur in Enduring Freedom.

The Air Force experienced a number of challenges in planning for the movement of forces into Afghanistan to support base

strategy. In addition to planning challenges related to Air Force units, joint interaction generated a different set of planning challenges.

Joint operations with special operations forces (SOF) created a unique set of planning challenges during Enduring Freedom that may not be obvious from studying earlier conflicts. The use of SOF in Enduring Freedom and Iraqi Freedom was an order of magnitude greater than that of Operation Desert Storm. SOF operations typically require special requirements and control of information regarding when, where, and how many troops will arrive on a specified site. This creates challenges in planning the right support for beddown, daily operations, base growth, and sustainment. In Afghanistan, “Those units accompanying special forces units conducting site surveys often had a difficult time completing detailed surveys due to the myriad of mines and UXOs [unexploded ordnances] scattered throughout the location.”²⁰ These were just a few of the challenges in Enduring Freedom.

In a July 2003 briefing to the Senate Armed Services Committee, General Tommy R. Franks, commander of US CENTCOM during Enduring Freedom and Iraqi Freedom, specifically mentioned that planning was cumbersome in Iraqi Freedom.²¹ Similarly, the Task Force Enduring Look review concluded, “Time-compressed adaptive planning, delayed

coordination, and the absence of dedicated, tailorable, contingency-response planning contributed to difficulties in supporting the initial bases with follow-on conventional forces.”²² Additionally, the Air Force civil engineering community discovered that predeployment information was fragmented and difficult to acquire. Airbase planning programs such as GeoBase and GeoReach, which were accessible during most of the conflict, were not available for early deployments. Additionally, initial site surveys, current base support plans, maps, runway information, or data on existing facilities and utilities for candidate-basing locations were difficult, if not impossible, to locate.²³ In almost every case, assumptions that utilities would be operational on seized airfields were wrong.²⁴

On the other hand, the use of automated expeditionary site survey tools, such as GeoReach, proved beneficial in rapidly adjusting plans during execution of Iraqi Freedom beddowns. Beddown site selection and planning was reduced to a matter of hours instead of weeks.²⁵

Organization

Enduring Freedom and Iraqi Freedom provide several lessons on how to derive a better organizational construct for opening airbases in the most expeditious and logical manner. Of the functional areas affected, the ones that stand out are civil

engineer units known as RED HORSE (Rapid Engineer Deployable, Heavy Operational Repair Squadron, Engineer) teams. The first use in Iraqi Freedom of airdropped airfield repair teams, Airborne RED HORSE (ARH), was generally successful. The Air Force deployed three teams of 35 combat engineers to repair damaged airfields. However, the combatant commands’ unfamiliarity with ARH made it difficult to push the capability into the war plans.²⁹ This failure is related to issues with joint doctrine, coordination, and planning between components and combatant commands.

Tallil—The Case That Ties It All Together

The dominant thinking for agencies that have studied this problem is that the opening of Tallil AB, Iraq, is the best example from which to draw lessons. The following discussion, which supports the Tallil claim as *best example*, is based on information presented at the Combat Air Forces (CAF) and Mobility Air Forces (MAF) Commanders Conference.³⁰ Tallil AB is located in the former southern no-fly zone near An Nasiriyah, Iraq. Before US occupation, the base was essentially nonoperational. US operations denied the Iraqis use of the airfield despite the absence of airfield bomb damage. Subsequently, CENTCOM initiated a joint effort to seize and open the base for coalition forces. On 22 March 2003, the Army’s 1st Brigade Combat Team (BCT), 3^d

Enduring Freedom and Iraqi Freedom provide several lessons on how to derive a better organizational construct for opening airbases in the most expeditious and logical manner.

engineering and airfield operations (AO). During Enduring Freedom, the Air Force discovered that the AO capability was not part of the core UTC package.²⁶ Additionally, the lessons of Enduring Freedom and Iraqi Freedom revealed that the Air Force needed an enhanced capability for airfield mine clearing. Army combat engineers initially cleared munitions from airfields, but the Army engineers were not aware of the need to establish clear zones for airfield operations. Hence, the Air Force initially was stuck with unusable airfields because of inadequate munitions clearance capability, particularly subsurface mine clearing capability.²⁷ In November 2001, as coalition ground troops seized the airfield at Mazar-e-Sharif, Afghanistan, they realized the bombing campaign had rendered the runway and airfield operations facilities unusable because of craters and unexploded ordnance and other explosive devices. Airfield operations and civil engineer personnel were called upon to make the airfield usable. The challenge was getting Air Force personnel, heavy equipment, and supplies in place when no reliable secure land route was established. Eventually, the Air Force team was able to open the runway within 10 days of seizing the area.²⁸ While this effort was a success, the event awakened the Air Force to the challenge of opening airbases in remote locations and drove the creation of airborne engineer units in the Air Force. The airborne engineer units were formed from elements of Air Force combat

Infantry Division (ID), seized the airfield 1 day after crossing the Iraqi border. The air mobility liaison officer was embedded with the seizure force. The initial base opening forces deployed into Tallil by convoy. The special tactics team (STT) and tanker airlift control element (TALCE) arrived on 23 March and provided air traffic control and conducted a landing zone assessment. The Army unit transitioned control of the airfield to the TALCE commander on 23 March. The assessment team completed its airfield assessment on 24 March. During the next 2 days, Air Force and Army units worked together to resolve a disconnect in planning for perimeter security. The 1st received orders to leave the base but was later replaced by the 1st BCT, 41st ID. During 25 and 26 March, combat engineers cleared airfield obstructions and ensured the airfield was ready for the first US aircraft to arrive. On 27 March, additional TALCE forces arrived on the first US C-130 aircraft to land at Tallil. The 820th Security Forces Group advanced team arrived on 28 March to assess long-term force protection requirements and establish a more robust communications capability. The first A-10 combat mission flew on 29 March. The AEG staff and remaining 820th forces arrived on 30 March, and portions of the base opening forces began to redeploy as early as 11 April. As a recap, the Tallil case was a success in joint planning and execution of base opening activities. The organizational construct worked well. The Air

Force team contained capabilities for airfield assessment, initial base opening, and group-level command and control. Air Force units included elements from the 720th STG (air traffic control), 621st Air Mobility Operations Group (airfield assessment), 621st TALCE (airfield operations), 820th Security Force (force protection and communications), and the 407th AEG staff (command and control). The follow-on forces included an A-10 Air Reserve wing from Whiteman AFB, Missouri.

The key lessons are as follows:

- The assessment teams and STT were key to bridging the seizure and opening phase.
- Including air mobility liaison officers with seizure forces facilitated the communication of field data and situational awareness to assessment teams.
- The STT provided initial runway assessment and air traffic control for follow-on forces.
- The early identification of the base mission was critical for opening setup.
- The involvement of the provisional wing and group leadership is important.
- The assessment team and the TALCE provided the throughput velocity and essential mobility expertise to the combined force air component commander (director of mobility forces) and Transportation Command (Air Mobility Command [AMC]).
- Having senior Air Force leadership (in the rank of colonel) is critical to opening an airbase. The senior leader provides liaison and expertise to ground forces and ensures appropriate air force situational awareness.
- Force protection forces must flow in early to replace seizure of ground forces. This means ensuring force protection units gain the appropriate TPFDD priority.
- Some base opening scenarios will require RED HORSE runway repair expertise, because the Army's light airfield repair unit lacks expertise to repair major damage to runways.
- The contingency response group (CRG) construct needs tweaking. CRG originally was conceived as an early-in and early-out force, but the Tallil, Tirana, and Bashur experiences demonstrated that portions of the capability will need to stay in place longer.³¹

With respect to the mission of opening airbases, there are opportunities to enhance doctrine, planning, and organizational constructs. Enduring Freedom and Iraqi Freedom provide good lessons from which to develop the solution set. Fortunately, the Air Force and the other services are aggressively working on developing solutions.

There are a number of emerging concepts to place into the solution set. The short list of initiatives includes enhanced Agile Combat Support, force modules, global CONOPS, and Eagle Flag. The Air Force and Army are working jointly on the solution set, especially in the area of joint doctrine for seizing and opening airbases. Also, the SEABEES, the Navy's construction battalion, are involved in developing solutions based on their experiences in Enduring Freedom and Iraqi Freedom. More important, the solution set addresses enhancements to doctrine, planning, and organizational constructs.

Doctrine

As of February 2004, Air Force doctrine did not address the requirements, the best way, of opening airbases. However, senior military leaders recognize this shortfall and have discussed the importance of treating opening airbases as a critical competency within doctrine. The existing doctrine does provide a useful baseline. Currently, published doctrine discusses six core competencies. Two of the six competencies relevant to this discussion are Agile Combat Support and rapid global mobility. Rapid global mobility highlights the importance of positioning military forces and capabilities for strategic agility and speed in deployments. Agile combat support emphasizes the need for flexible responsive support systems, covering those support systems critical to opening airbases. However, the doctrine fails to mention opening airbases. Opening airbases is critical to building up forces to gain and expand the strategic initiative.

In addition to addressing opening airbases as a competency, doctrine should address the best way to employ forces. In his 1997 School of Advanced Airpower Studies thesis, Major Patrick Smith examined whether or not basing of expeditionary forces should be a sequential or parallel process. The primary question is which method delivers the best mix of capabilities in the most opportune time. Smith concludes that the parallel process is best if this means capabilities are integrated within force modules. Additionally, Smith examines whether basing problems are the result of the Air Force's doctrinal shortfalls related to time or the physical challenges caused by the complexities of deploying a high-tech, heavy capability forward to overseas locations. By physical challenges, he means the challenges of ensuring the base infrastructure (runway, parking ramps, and so on) can handle the physical, operational demands of the assigned weapon system and the availability of the real estate. These issues have been targeted in the evolving solution set, particularly in terms of doctrine and adaptive planning.

The Air Force is preparing to update its published doctrine to reflect the lessons learned opening airbases. The Air Force Doctrine Center has produced a number of draft documents that are in coordination with Headquarters Air Force and the Army.³² In addition to the development of doctrine, the Air Force is preparing to publish a number of documents that describe CONOPS for base opening and related processes. The October 2002 draft Global Mobility Task Force CONOPS provides a reliable perspective on the best way to posture capabilities to open airbases under a range of scenarios. The CONOPS describes scenarios in which the US military would be required to seize bases in a nonpermissive environment or simply move forces into position in a permissive environment. The CONOPS lays out an approach to sequencing forces for rapid airfield assessment and preparation of follow-on forces in both environments. Forces also may be inserted by airdrop (plane or helicopter) or overland.³³ This is a significant shift in thinking for Air Force combat support forces, but it became a reality with use of the ARH. New CONOPS and doctrine require new planning, but changing planning constructs requires more thought about tradeoffs among competing objectives.

Planning

A combined RAND and Air Force Logistics Management Agency (AFLMA) study provides greater clarity on the impact of various

solutions by discussing the tradeoffs among competing objectives for planning expeditionary support. The study considers several variables or factors such as time, cost, deployment footprint, risk, flexibility, and sortie generation, which are all important in assessing tradeoffs. For example, prepositioning assets reduces time but may increase risk and reduce flexibility in choosing courses of action in various theaters of operation. In the final analysis, the RAND/AFLMA researchers conclude that a quantitative model is not available to assess tradeoffs; therefore, decisionmakers must use their best judgment.³⁴ The primary point is that there are few easy answers in tailoring capabilities for a wide range of missions, and tradeoffs will always exist. Planners simply have to use their best judgment based on experience and available information, which will exist in doctrine and other sources.

What is needed is the movement toward better joint planning where the military maximizes the potential of each player rather than its being perceived as a turf issue.³⁵ Front-end planning will reduce the complexities and challenges for each service and facilitate jointness. With the current DoD transformation focus on net-centric operations and systems, it only makes sense that the Services would capitalize on automated systems to enhance planning. Several automated systems already exist. One automated system, the Base Capability Assessment Tool (BCAT) compares planned sortie-generation requirements (from the ATO)

right mix of personnel are assigned and to eliminate redundant site visits. As part of this refinement, all site survey teams will include engineers; in fact, new force packaging concepts will include engineers on the initial beddown teams.³⁸

In addition to functional integration of the planning process and systems, senior military leaders have come together on several occasions to drive improvements from the highest levels in the Services. For example, senior Air Force officials discussed a set of solutions during the 2003 CAF and MAF Commanders Conference. These solutions include:

- Picking a designated boss for each phase.
- Identifying the expeditionary mission support group and AEW commanders and moving them forward as soon as possible.
- Developing rules of engagement for *handoff* at each phase.
- Making the commander of the first base opening element responsible for completing assessments for mobility airland operations and calling it forward.
- Ensuring the TALCE supports the initial airbase commander and directs the airland flow.³⁹

However, again, the changes to doctrine and planning require changes to the organizational construct to realize the full potential of transformation.

The Air Force is applying a *force module* concept as the construct or tool to provide the proper organization and flexibility for tailoring and deploying capability to open airbases.

to a base's capability to generate sorties.³⁶ In this capacity, BCAT serves as a useful tool in assessing the impact of varying force configurations over time as forces are deployed sequentially or in parallel. The Deliberate Crisis Action Planning Execution System provides the capability to modify TPFDDs quickly. Automated expeditionary site survey tools, such as GeoReach, offer the capability for rapid readjustment of basing plans. GeoReach allows planners to assess and develop 75-percent solutions when used with the Logistician's Capability Assessment Tool (LOGCAT) and TRANSCOM's Port and Airfield Collaborative Environment program.³⁷

To capitalize on available opportunities to improve planning, the RAND/AFLMA study recommends organizational and process changes. The study proposes institutionalizing a cross-functional team at the Air Staff level to review and integrate functional planning. Functional integration is occurring. For example, to address some of the planning challenges, the Air Force installations and logistics community is doing the following.

...refining the site survey process by consolidating MAJCOM and AFS [Air Force specialty]-specific survey checklists. Additionally, GeoReach is being consolidated with LOGCAT, the AMC Site Database, and other databases into a single package. As part of this initiative, site survey teams have been redefined to ensure that the

Organization

The EAF concept doesn't change how the Air Force employs forces, but it does change how the Air Force organizes to present forces to the theater CINCs.

—Air Force Studies and Analysis Agency

The 2001 Quadrennial Defense Review captured the essence of where the Air Force is headed in terms of being able to present a task force to the combatant commanders.

To better meet future warfare challenges, DoD must develop the ability to integrate...forces capable of responding rapidly to events that occur with little or no warning. These...forces must be scalable and task organized into modular units to allow the combatant commanders to draw on the appropriate forces.... They must be not only capable of conducting distributed and dispersed operations but also able to force entry in antiaccess or area-denial environments.⁴⁰

The Air Force is applying a *force module* concept as the construct or tool to provide the proper organization and flexibility for tailoring and deploying capability to open airbases. Many of the combat support functional or skill areas are affected by this effort. Some agencies are referring to the force module concept as a playbook, which will provide combatant commanders the capability to better manage forces required for

opening and establishing forward bases. According to Major General Peppe, formerly head of the Air Force Expeditionary Center, "The key to the playbook is matching the appropriate people and equipment into 'force modules' designed to...allow a combatant commander to assemble force to open and build up an airbase in an expeditious manner and in a logical sequence."⁴¹

Joint guidance defines a force module as :

...a grouping of...forces, with their accompanying supplies...to sustain forces for a minimum of 30 days. The elements of force modules are linked or are uniquely identified so that they may be extracted from or adjusted as an entity in the Joint Operations Planning and Execution system databases to enhance flexibility and usefulness of the operation plan during a crisis.⁴²

The force module concept in and of itself is nothing new. Air Force Civil Engineering personnel have been studying the concept since at least 1989 and have used the construct to frame several initiatives to improve UTC configuration for limited tactical and strategic lift.⁴³ For example, in 1997, Air Force civil engineers restructured their largest UTC into six modular task-organized force packages.⁴⁴ The smaller modular units simplified presentation of engineering capability for the combatant commands. What is important is that senior Air Force leaders recognize the importance of presenting force modules as a tool for the combatant commanders. According to the October 2002 draft of the Global Mobility Task Force CONOPS.

When these capabilities are presented, in part or in whole, to meet joint force commanders' requirements, these capabilities are presented, in accordance with Air Force doctrine as AETFs. As missions change in these theaters, the composition of these AETFs and the capabilities within them will evolve to best meet the needs of the combatant commanders.⁴⁵

Additionally, the CAF and MAF conferees discussed the minimum set of required capabilities for opening airbases, which consist of the abilities to:

- Assess the airbase,
- Establish minimum operating strip,
- Protect the forces,
- Provide initial command and control,
- Conduct airfield operations,
- Establish communications,
- Handle cargo and passengers, and
- Receive and beddown initial forces.⁴⁶

The Air Force recognizes the importance of sequencing the right capabilities at the right time. The force module construct for opening airbases is designed around five phases, which fall under Air Force purview, as identified in the list below.⁴⁷

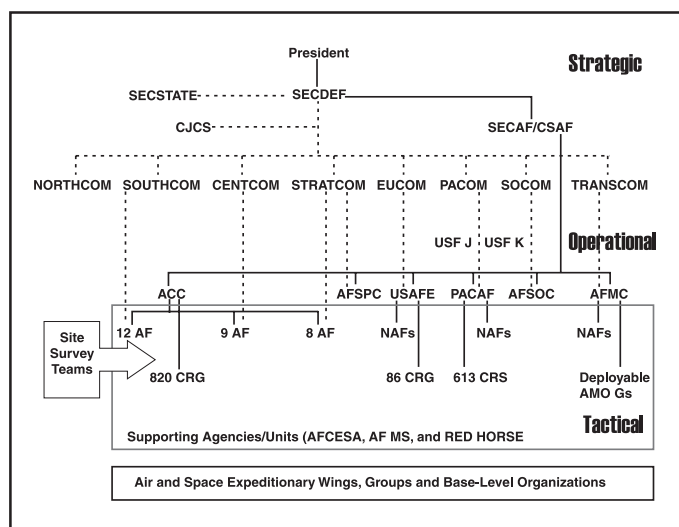
- Opening the base: the first Air Force units on the ground to assess and prepare the airfield for operations.
- Establishing wing-level command and control under an AEW.
- Establishing the base with additional expeditionary combat support forces.
- Generating the mission.
- Bringing in remaining forces to operate the base.

Phase 1, opening the base, has two segments. The first segment

involves an initial site survey with a small team to assess the primary requirements, such as force protection, engineering, and airfield operational requirements for opening the base. The second segment involves deployment and employment of the force modules for opening the base. This segment is conducted in three steps: opening the runway, opening the remaining airfield, and opening the remaining facilities to support beddown of the wing command and control module.⁴⁸ The Air Mobility Warfare Center generally describes the phases as follows. The first phase provides the capabilities to open the base, regardless of the follow-on mission type. These forces provide the initial capabilities for command and control, communications, force protection, cargo/pax processing, airfield operations, and reception and beddown of forces and follow-on modules. These forces open a base that may support any service or nation. The second phase provides the wing-level command and control capability. Additionally, this module contains the deployed wing command and control structure for the maintenance group, mission support group, operations group, and medical group. More robust and secure communications and intelligence capabilities arrive in the third phase. The third phase provides limited forces to bring the base to an initial operating capability that includes capabilities designed to support most missions or weapon systems. The arriving force modules extend and then replace capabilities within the *open the airbase* and *command and control* modules to provide the earliest capability to operate the primary mission. The modules also provide capabilities to build and modify support infrastructure such as fuel distribution systems, maintenance shelters, tents, and electrical distribution. This phase establishes 24-hour mission operations capabilities and enhances force protection and communications.⁴⁹

According to the Air Force Chief of Staff, "We train our operators at Red Flag, and we have for years—since 1975. Now that we are in a different world, it's time to start training our mission support elements that get us to where we need to go, that set up in distant places and keep (the Air Force) operating."⁵⁰ To prepare combat support forces to operate under this enhanced construct, the Air Force has established a new expeditionary training program called Eagle Flag. Its purpose is to give commanders and their units a chance to focus on the application of skills associated with establishing an airbase at an austere location to the point of initial operating capability, enabling the airbase to receive and generate mission capable forces. The target leaders are wing, group, and squadron commanders. The expectation is that key personnel already are aware of the relevant doctrinal and planning concepts.⁵¹ Eagle Flag provides the opportunity to practice expeditionary combat support skills in a mock environment based on the challenges faced in opening airbases for Enduring Freedom and Iraqi Freedom. The current concept involves deploying a combat support team into a semipermissive environment using force modules from one or more bases to open and establish an expeditionary operating location within 9 days of deploying to the training site at Fort Dix, New Jersey. As of February 2004, three teams had been trained.⁵²

The Air Force has developed a plan for identifying and assigning specialized base opening force packages for each specified combatant command. These force packages are organized day-to-day as contingency response groups. For the initial step of conducting site surveys for a base opening, each



Air Force component command will have a program office responsible for site survey planning and execution. Additionally, the program offices will orchestrate execution of site surveys in concert with AMC and supporting agencies. Figure 3 identifies the command relationships.

The Air Force intends to transform the CRG construct to support the base-opening mission. However, questions remain about the best way to transform. For example, should the mission scope be limited to airbase opening only? Should the capabilities remain in place at the deployed location? Are there opportunities to integrate capabilities with Army, Marines, and SOF units? During the writing of this article, there was no evidence available to suggest that the Air Force has resolved these issues. However, there are clear indications that the Air Force is working these issues. For a truly joint effort, the Air Force and Army should integrate BOS capabilities for base opening into an organizational construct similar to CRGs. Integration will eliminate most of the BOS issues that arrive during transition. Once employed, the capability should remain in place until adequate sustainment forces arrive. The capability should not be limited to opening airbases, but this should be a key competency. To support this organizational construct, the Services will need to update doctrine and training.

In addition to enhancing the organizational construct for CRGs, the Air Force should better integrate the CONOPS for ARH. This should be done through integration with joint doctrine and integration of functional planning. The ARH CONOPS requires engineers to deploy into austere locations rapidly, assess airfield capabilities, prepare helicopter or aircraft landing areas, clear obstacles, install emergency airfield lighting systems, and make expedient airfield damage repairs. They must also test for potable water sources, perform expedient force protection construction, clear explosive hazards, provide fire rescue and emergency medical services, and assess potential nuclear, biological, chemical, and toxic industrial hazards.⁵⁴

Enduring Freedom and Iraqi Freedom demonstrated that deployments are sometimes significantly different from simply picking a large combat support UTC of more than 500 people and deploying force packages by air to an austere location. The force modules aid in streamlining logistics and reducing the

initial footprint required on the ground. In comparison to other operations where the United States had to open airbases in the 1990s—Rwanda, Kosovo, Bosnia, and Haiti—Enduring Freedom and Iraqi Freedom vastly accelerated the need for new bases. “We’ve had to open up 38 new bases since September 11 terrorist attacks.”⁵⁵ Air Force Chief of Staff General John Jumper agreed. “It was inside of a month after 9/11 [that] we were doing combat operations into an entirely landlocked nation.”⁵⁶ He saw this as a continuation of the transformation that started as the Air Force shifted to the AEF construct.

Conclusions

Given the US forward presence strategy and limited strategic lift capability, the key to knocking the door down (forced entry) and killing targets is the ability to achieve global reach through expeditionary basing and sustainment. Opening airbases is critical to building up forces to gain and expand the strategic initiative. Effective base opening requires the synergistic effects of applying both ground and air forces while transforming from joint interoperability to exploiting the synergy of joint interdependency. Enduring Freedom and Iraqi Freedom demonstrated the enormous capacity of the US military to establish forward locations for expeditionary operations. These operations highlighted significant areas where the United States can enhance its ability to project forces. The Air Force, together with the other services, is on track to enhance this competency for the purposes of maintaining the capability for strategic reach and power.

The best perspective is one that views the emerging initiatives as an evolving solution set focused on transformation within the strategic context. The context for change uniquely influences doctrine, planning, and organization. The lessons from recent operations—in which planning was slow, difficult, and cumbersome, and organizational constructs were not designed to place the right capability and function in the right place at the right time—provided a few pathfinders to spark transformational initiatives. Some form of the CRG construct, combined with integrated planning, will solve many of the planning concerns. Most notably, while adequate doctrine on opening airbases does not currently exist, the Services are aggressively working to develop doctrine for opening airbases with a focus on functional integration and better CONOPS. Although joint issues regarding base operating support and transition between phases arose in both Iraqi Freedom and Enduring Freedom, the opening of Tallil AB offers a good model for improvement.

Ultimately, the Air Force, in concert with the other services, needs to continue refining the qualities and characteristics of the planning and organizational tools and capabilities for opening airbases. Structuring the force modules for various operations begins in the planning phase. Properly sized and sequenced modules should be established to provide full spectrum support based on the size, duration, risk and operating environment. Properly sized means scaled to provide the right capability for the task, no more, no less. Properly sequenced means prioritized based on time and need to establish essential services for each phase to maximize combat capability deployed forward.

The solution set is evolving. As such, transforming combat support capability for opening airbases into a highly responsive

and adaptive capability requires evolutionary thinking and approaches to deal with the new strategic environment. This requires rethinking doctrine, planning, and organization under the AEF construct. Eagle Flag, Airborne RED HORSE, contingency response groups, Agile Combat Support, and global mobility task force CONOPS are excellent constructs moving the US military in the right direction.

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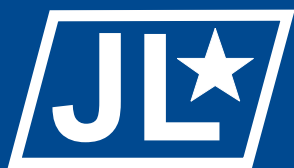
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At the time of writing, Colonel Croslen was a student at the Air War College and Colonel Kwolek was member of the Air War College faculty. Now retired, Ms Kwolek is the Deputy for Research and Electives to the Associate Dean for Academic Programs, Air War College. [JL★]

notable quotes

...I have dared to look into the future, but in so doing I have based my views, not on idle imaginings, but upon the reality of today, out of which grows the reality of tomorrow.

—Giulio Douhet



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